



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/528,628	03/22/2005	Jean-Marc Reme	FR 020100	3775
24737 7590 03/08/2010 PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510				
EXAMINER				
SURVILLO, OLEG				
ART UNIT		PAPER NUMBER		
2442				
MAIL DATE		DELIVERY MODE		
03/08/2010		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/528,628

**Applicant(s)**

REME, JEAN-MARC

**Examiner**

OLEG SURVILLO

**Art Unit**

2442

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 September 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7 and 9-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/GS/US)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Amendment***

1. Claims 1-7 and 9-16 remain pending in the application. Claims 1, 4, 5, 9, 10, 12 and 13 are currently amended. Claim 8 has been canceled. No new claims are added.

***Response to Arguments***

2. With regard to the applicant's remarks dated September 11, 2009:  
regarding the rejection of claims 4 and 9-16 under 35 U.S.C. 101, applicant's amendments and arguments have been fully considered.

As to claim 4, applicant's amendment has been fully considered and is sufficient. Therefore, the rejection has been withdrawn.

As to claim 9, applicant's amendment to specify that the content streaming service is hosted on a computer system is not sufficient to place "a content streaming service" into one of the statutory categories of the invention since the content streaming service, being a software program, is not structurally and functionally interconnected with an article of manufacture such as a computer-readable storage medium in a manner which enables the program to act as a computer component and realize its functionality, as discussed fully under the reasons for rejection below. Therefore, the rejection is maintained.

As to claim 10, applicant's amendment to specify that the computer program is being accessed by a computer system is not sufficient to limit the claim to only statutory

embodiments of a computer-readable medium, as discussed fully under the reasons for rejection below. Therefore, the rejection is maintained.

As to claim 12, applicant argues that *"the term "server" is a term-of-art well-known in the computer field as being a physical entity including processing chip(s), memory and communication ports"*. Examiner disagrees. The specification fails to provide a specific definition of a "server" as being a physical entity including processing chip(s), memory, and communication ports. It is also well known in the art for server to be implemented in software, such as a virtual server. Therefore, recitation of a "server" in the claim does not inherently mean that the claim is directed to a machine. The rejection is maintained. Applicants are advised to amend the claim by reciting a processor as was done in claim 4.

Regarding the rejection of claims 1-7 and 9-16 under 35 U.S.C. 112, first paragraph, applicant's arguments and amendments have been fully considered and are sufficient with respect to claims 1-7 and 9-13. Therefore, the rejection has been withdrawn. As to claims 14-16, applicant provided support in the specification for associating parameters with a particular connection. However, claims 14-16 recite the limitation of associating parameters with a particular terminal, such as second terminal. There is no support in the specification for associating parameters with a terminal. Therefore, the rejection is maintained.

Regarding the rejection of claims 1-7 and 9-16 under 35 U.S.C. 112, first paragraph, applicant's amendment and arguments have been fully considered and are sufficient. Therefore, the rejection has been withdrawn.

Regarding the rejection of claims 1-7 and 9-16 under 35 U.S.C. 112, second paragraph, applicant's amendment and arguments have been fully considered and are sufficient. Therefore, the previously-made rejection has been withdrawn.

Regarding the rejection of claims 1, 2, 4-6, 9, 10, 12-14, and 16 under 35 U.S.C. 102(e) and rejection of claims 3, 7, 11, and 15 under 35 U.S.C. 103(a), applicant's arguments have been fully considered.

**At point 1)**, applicants argue at page 14 that *"this step of providing the content at a bit-rate thus is performed dynamically as nowhere does Hamilton disclose pre-configuring the content based on a plurality of encoding rates, as in recited in the claims. In fact, Hamilton fails to provide any teaching that the content is in a pre-configured format, and, hence, the content must be stored in an original format to allow for the encoding and transmission at different encoding rates"*.

In response to applicant's argument at point 1), it is noted that nowhere do the claims state that formatting a content in a plurality of encoding rates is pre-configured such that each formatted encoding rate version of said content is stored in advance on the server. Therefore, it is well within the scope of the claims to have such formatting in a plurality of encoding rates being performed dynamically.

**At point 2)**, applicants further argue at page 14 that *"Hamilton fails to disclose any process for determining a location within a file containing the content formatted in a different bit-rate from the last stored access point"*.

In response to applicant's argument at point 2), it is noted that since random access points are common in each of said formatted encoding rate versions of said

content, the process of determining a location within a file containing the content formatted in a different bit-rate from the last stored access point is the same as the process of determining a location within the containing the un-formatted content or the content formatted in the same bit-rate. Therefore, applicant's argument is not persuasive.

**At point 3)**, applicants argue that *"Hamilton fails to provide any teaching regarding determining a point to begin data streaming from a point in the content associated with the another device from a point of interruption of the data stream in a first device"*.

In response to applicant's argument at point 3), it is noted that since random access points are common in each of said formatted encoding rate versions of said content, the fact that the program resumption could be at a different bit rate based on the second device is irrelevant because the resumption is based on a common point of interruption, i.e. common random access point.

**At point 4)**, applicants argue that *"Sitaraman fails to provide any teaching regarding how the switch from a high-bit rate to a lower bit rate transmission occurs or that there are access points within each file that are common that may be used in the transition from one bit-rate to another"*.

In response to applicant's argument at point 4), it is noted that specific teachings as to how the switch from a high-bit rate to a lower bit rate transmission occurs is not required by the claim language. Furthermore, it is inherent that access points analogous

to those of Hamilton exist in the system of Sitaraman in order to enable transition from one bit-rate to another.

**At point 5)**, applicants argue that "as Sitaraman fails to disclose any relationship of the bit-rates one would recognize that the bit rates used to encode the content are arbitrarily selected so as to allow lower bit rates to be transmitted as the network degrades".

In response to applicant's argument at point 5), it is noted that bit rates were arbitrarily selected, as argued, there would be no consistency in transition from one bit-rate to a lower bit-rate as the network degrades. Such as, one user would still enjoy higher bit-rate media while another user would have bit-rate lowered while both users operating on the same degrading network. However, this is clearly not the case. Therefore, applicant's argument cannot be held as persuasive.

As to any arguments not specifically addressed, they are the same as those discussed above.

### ***Claim Rejections - 35 USC § 101***

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 9-16 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

As to claim 9, "a content streaming service" does not fall within one of the statutorily authorized categories of invention. Since the content streaming service is a

software program, which when executed causes a series of steps or acts to occur, it appears that it would be patentable if structurally and functionally interconnected with an article of manufacture. A manufacture such as a computer-readable storage medium structurally and functionally interconnected with the program in a manner which enables the program to act as a computer component and realize its functionality would place the claimed "content streaming service" in the statutory category of manufacture and render statutory under 35 U.S.C. 101. Applicants are advised to amend the claim to recite "A content streaming service stored as program instructions in a computer-readable storage medium of ~~hosted on~~ a computer system, said service, when executed, performs streaming".

As to claim 10, the broadest reasonable interpretation of a claim drawn to a computer readable medium typically covers forms of non-transitory tangible media and transitory propagating signals *per se* in view of the ordinary and customary meaning of computer readable media, particularly when the specification is silent. See MPEP 2111.01. When the broadest reasonable interpretation of a claim covers a signal *per se*, the claim must be rejected under 35 U.S.C. 101 as covering non-statutory subject matter. Therefore, claims 10 and 11 are directed to non-statutory subject matter. Applicants are advised to amend claim 10 to recite "A computer-readable non-transitory medium" or "A computer-readable storage medium". Such an amendment would render claim 10 statutory under 35 U.S.C. 101 and would not raise the issue of new matter,



even when the specification is silent because the broadest reasonable interpretation relies on the ordinary and customary meaning that includes signals *per se*.

As to claim 12, use of the word "server" does not inherently mean that the claim is directed to a machine unless the specification provides a specific definition of a "server" as necessarily including at least one physical entity. Only if at least one of the claimed elements of the server is a physical part of the device or a combination of devices can the server as claimed be a machine within the meaning of 35 U.S.C. 101.

In the instant case, the specification fails to specifically define a "server". As claimed, the server is comprising a database and a monitor. The specification fails to provide a proper antecedent basis for "a monitor". For the purposes of this analysis, claimed "monitor" is interpreted as a user count manager, based on its functionality. Thus, the specification shows that in at least one embodiment the user count manager is implemented in the form of software. See page 3 line 34 to page 4 line 1. A database is a structured collection of records, in its plain meaning and in light of the specification. Thus, neither a user count manager nor a database can be positively identified as a physical part of the claimed server. Since no other components of the server have been claimed, the server of claim 12 is reasonably interpreted as comprising software *per se*. Thus, claim 12 is directed to non-statutory subject matter. Claims 13-16 are also directed to non-statutory subject matter because these claims fail to introduce at least one physical part of the server of claim 12.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-7 and 9-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claims 1, 4, 5, 9, 10, and 12, the limitation of "an encoding rate offered by said one of said connections" is ambiguous because the connection does not offer an encoding rate. Applicants are advised to amend the claim to recite "an encoding rate ~~offered by~~ associated with said one of said connections".

As to claim 4, a processor hosting a user count manager, which in turn comprises a database of registered users is ambiguous. The specification shows that in at least one embodiment the user count manager is implemented in the form of software. See page 3 line 34 to page 4 line 1. A database of registered users is a structured collection of records, in its plain meaning and in light of the specification. Thus, it is unclear how can a processor "host" a software application. Appropriate correction is required. Applicants are advised to amend the claim to recite "a processor ~~hosting~~ executing a user count manager application comprising".

Claim 12 recites the limitation "the network" at the last line of claim body. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-7 and 9-16 are rejected under 35 U.S.C. 103(a) as being obvious over Hamilton (US 2003/0139980 A1) in view of Sitaraman et al. (US 2006/0179154 A1).

As to claim 1, Hamilton teaches:

a network [cable television network (50)] (Fig. 1),

a server [media server (46)] (par. [0035], Fig. 2) for storing and streaming a content comprising several random access points [playing positions] (CURRENT\_POSITION (308d)) (Fig. 3), said content being formatted in a plurality of encoding rates [each content is formatted in one of a plurality of bit rates dynamically at the time of streaming] (par. [0060], par. [0079] lines 13-16, Fig. 3 element (314d));

a user count manager [media server proxy (34) having application software (42)] (Fig. 2), said user count manager comprising a database of registered users [resource manager database (62)] (Fig. 2),

each registered user having one or more terminals [each customer having one or more media receivers (52)] (Fig. 2, par. [0042]) with one or more connections to said network [each media receiver having at least one connection to said network (50)] (Fig. 2) for carrying out a streaming session with said server (par. [0042]),

said database storing user identification data [customer table (300)] (par. [0054]), said user count manager being designed so that, when a streaming session is interrupted (par. [0090]), an indication of the streamed content and of a last random access point in the streamed content when the stream was interrupted are stored in said database together with the user identification data (par. [0061], [0090]), so as to allow the resumption of the interrupted streaming session from said last random access point (par. [0090]) by one of said connections available to said user [utilizing the connection connecting media receiver with the distribution network (50)] (par. [0027]), wherein a position within said determined content associated with said one of said connections is determined based on said last random access point [last played position is correlated with the current playing position at which to resume the streaming; connection is, in turn associated with a selected one of said media receivers] (par. [0090], Fig. 7) and said one of said connections is determined based on an available bandwidth of the network (par. [0052], [0078]).

Hamilton does not teach said encoding rates associated with a corresponding connection, wherein said random access points are common in each of said formatted encoding rate versions of said content; and wherein which of said encoding rate formatted content is determined by an encoding rate offered by said one of said connections.

Sitaraman teaches a method and apparatus for measuring stream availability, quality and performance (abstract). In particular, Sitaraman teaches that a server has access to several encoded versions of said content [multiple interleaved encodings of

multi-bitrate media] each version having a specific encoding rate [each version having different bitrate] (par. [0058]). It is inherent that said encoding rates are associated with a corresponding connection, wherein said random access points are common in each of said formatted encoding rate versions of said content because otherwise the server would not know at which point of network degradation to step down to a lower bitrate encoding and from which point to continue transmission of the content.

It would have been obvious to one of ordinary skill in the art at the time of the invention modify the system of Hamilton by having several encoded versions of said content, each version having a specific encoding rate and grading said server access to said several encoded versions of said content in order to allow the server to step down from a higher-bitrate encoding to a lower-bitrate encoding, effectively thinning the media when the network degrades while continuing streaming of media without interruption (par. [0058] in Sitaraman).

As to claim 2, Hamilton shows that said database further stores user connection data [node table (306)] (Fig. 3) comprising an identification of each connection available to said user [identification of the distribution node (76) associated with the customer] (par. [0078]), and for each available connection [with the distribution node (76) of the network (50)], an indication of an initial sending rate to be used for streaming a content toward said user via said connection [an indication of the channel's bit rate] (par. [0079]).

As to claim 3, Hamilton shows that a version initially used when resuming a streaming session toward a user via a certain connection is the version whose encoding rate best matches the initial sending rate to be used for said connection (par. [0052], [0061], [0079], [0091]).

Hamilton does not show that said server has access to several encoded versions of said content, each version having a specific encoding rate.

Sitaraman shows that a server has access to several encoded versions of said content [multiple interleaved encodings of multi-bitrate media] each version having a specific encoding rate [each version having different bitrate] (par. [0058]).

It would have been obvious to one of ordinary skill in the art at the time of the invention modify the system of Hamilton by having several encoded versions of said content, each version having a specific encoding rate and grading said server access to said several encoded versions of said content in order to allow the server to step down from a higher-bitrate encoding to a lower-bitrate encoding, effectively thinning the media when the network degrades (par. [0058] in Sitaraman).

As to claim 4, Hamilton teaches:

a transmission unit/reception unit [media receiver controller (48)] (Fig. 2); and  
a processor [processor (36)] (Fig. 2) hosting a user count manager [media server proxy (34) having application software (42)] (Fig. 2) comprising: a database of registered users [resource manager database (62)] (Fig. 2),

said registered user having one or more terminals [each customer having one or more media receivers (52)] (Fig. 2, par. [0042]) with one or more connections to a network [cable television network (50)] (Fig. 1) [each media receiver having at least one connection to said network (50)] (Fig. 2) for carrying out a streaming session with a server [media server (46)] (par. [0035], Fig. 2) (par. [0042]), said server including content formatted in a plurality of encoding rates [each content is formatted in one of a plurality of bit rates dynamically at the time of streaming] (par. [0060], par. [0079] lines 13-16, Fig. 3 element (314d));

said database being intended for storing user identification data [customer table (300)] (par. [0054]), and

said user count manager being designed so that, when a streaming session is interrupted (par. [0090]), an indication of the streamed content and of a last random access point in the streamed content when the stream was interrupted are stored in said database together with said user identification data (par. [0061], [0090]), so as to allow the resumption of the interrupted streaming session from said last random access point (par. [0090]) by one of said connections available to one of said terminals associated with said user [utilizing the connection connecting media receiver with the distribution network (50)] (par. [0027]), wherein a position within said determined content associated with said one of said connections is determined based on said last random access point [last played position is correlated with the current playing position at which to resume the streaming; connection is, in turn associated with a selected one

of said media receivers] (par. [0090], Fig. 7) and said one of said connections is determined based on an available bandwidth of said network (par. [0052], [0078]).

Hamilton does not teach said encoding rates associated with a corresponding connection, wherein random access points in each of said formatted encoding rate versions of said content are common; and wherein which of said encoding rate formatted content is determined by an encoding rate offered by said one of said connections.

Sitaraman teaches a method and apparatus for measuring stream availability, quality and performance (abstract). In particular, Sitaraman teaches that a server has access to several encoded versions of said content [multiple interleaved encodings of multi-bitrate media] each version having a specific encoding rate [each version having different bitrate] (par. [0058]). It is inherent that said encoding rates are associated with a corresponding connection, wherein said random access points are common in each of said formatted encoding rate versions of said content because otherwise the server would not know at which point of network degradation to step down to a lower bitrate encoding and from which point to continue transmission of the content.

It would have been obvious to one of ordinary skill in the art at the time of the invention modify the device of Hamilton by having several encoded versions of said content, each version having a specific encoding rate and grading said server access to said several encoded versions of said content in order to allow the server to step down from a higher-bitrate encoding to a lower-bitrate encoding, effectively thinning the media



when the network degrades while continuing streaming of media without interruption (par. [0058] in Sitaraman).

As to claim 5, Hamilton teaches:

streaming a content comprising several random access points [playing positions] (CURRENT\_POSITION (308d)) (Fig. 3) via a network [cable television network (50)] (Fig. 1) to registered users for which user identification data are stored in a database [resource manager database (62)] (Fig. 2), said content being formatted in a plurality of encoding rates [each content is formatted in one of a plurality of bit rates dynamically at the time of streaming] (par. [0060], par. [0079] lines 13-16, Fig. 3 element (314d)); said registered users having one or more terminals [each customer having one or more media receivers (52)] (Fig. 2, par. [0042]) with one or more connections to said network [each media receiver having at least one connection to said network (50)] (Fig. 2), said streaming method comprising the step of: storing in said database, with said user identification data [customer table (300)] (par. [0054]), when a content streaming session is interrupted (par. [0090]), an indication of the streamed content and of a last random access point in the streamed content when the stream was interrupted (par. [0061], [0090]), so as to allow the resumption of the interrupted streaming session from said last random access point (par. [0090]) by one of said connections available to one of said terminals associated with said user [utilizing the connection connecting media receiver with the distribution network (50)] (par. [0027]), wherein a position within said determined content associated with said one of said connections is determined based

on said last random access point [last played position is correlated with the current playing position at which to resume the streaming; connection is, in turn associated with a selected one of said media receivers] (par. [0090], Fig. 7) and said one of said connections is determined based on an available bandwidth of the network (par. [0052], [0078]).

Hamilton does not teach said encoding rates associated with a corresponding connection, wherein said random access points are common in each of said formatted encoding rate versions of said content; and wherein which of said encoding rate formatted content is determined by an encoding rate offered by said one of said connections.

Sitaraman teaches a method and apparatus for measuring stream availability, quality and performance (abstract). In particular, Sitaraman teaches that a server has access to several encoded versions of said content [multiple interleaved encodings of multi-bitrate media] each version having a specific encoding rate [each version having different bitrate] (par. [0058]). It is inherent that said encoding rates are associated with a corresponding connection, wherein said random access points are common in each of said formatted encoding rate versions of said content because otherwise the server would not know at which point of network degradation to step down to a lower bitrate encoding and from which point to continue transmission of the content.

It would have been obvious to one of ordinary skill in the art at the time of the invention modify the method of Hamilton by having several encoded versions of said content, each version having a specific encoding rate and grading said server access to

said several encoded versions of said content in order to allow the server to step down from a higher-bitrate encoding to a lower-bitrate encoding, effectively thinning the media when the network degrades while continuing streaming of media without interruption (par. [0058] in Sitaraman).

As to claim 6, Hamilton in view of Sitaraman shows all the elements, as discussed per claim 2 above.

As to claim 7, Hamilton in view of Sitaraman shows all the elements, as discussed per claim 3 above.

As to claim 9, Hamilton in view of Sitaraman shows all the elements, as discussed with respect to claim 1, and analogously claims 4 and 5. Therefore, claim 9 is rejected for the same reasons.

As to claim 10, Hamilton in view of Sitaraman shows all the elements, as discussed with respect to claim 1, and analogously claims 4 and 5. Therefore, claim 10 is rejected for the same reasons.

As to claim 11, Hamilton shows that the database stores user connection data [node table (306)] (Fig. 3) that includes an identification of each connection available to said user [identification of the distribution node (76) associated with the customer] (par.

[0078]), and for each available connection [with the distribution node (76) of the network (50)], an indication of an initial sending rate to be used for streaming a content toward said user via the connection [an indication of the channel's bit rate] (par. [0079]), and the a version initially used when resuming a streaming session toward a user via a given connection is the version whose encoding rate best matches the initial sending rate to be used for the connection (par. [0052], [0061], [0079], [0091]).

Hamilton does not show that several encoded versions of the content are available, each version having a specific encoding rate.

Sitaraman shows that a server has access to several encoded versions of said content [multiple interleaved encodings of multi-bitrate media] each version having a specific encoding rate [each version having different bitrate] (par. [0058]).

It would have been obvious to one of ordinary skill in the art at the time of the invention modify the computer program of Hamilton by having several encoded versions of said content, each version having a specific encoding rate and grading said server access to said several encoded versions of said content in order to allow the server to step down from a higher-bitrate encoding to a lower-bitrate encoding, effectively thinning the media when the network degrades (par. [0058] in Sitaraman).

As to claim 12, Hamilton shows a server [media server proxy (34)] (par. [0037], Fig. 2) comprising:

a database that is configured to enable storage of a plurality of identifications of terminals associated with each of one or more users [resource manager database (62) having customer table (300)] (par. [0054], Fig. 2), and

a monitor [application software (42) of media server proxy (34)] (Fig. 2) that is configured to monitor communications between a first terminal [media receiver (52)] associated with a user and a source of streaming content material [media server (46)], said content material having an encoded rate content format associated with each of a plurality of connections [each content is formatted in one of a plurality of bit rates dynamically at the time of streaming] (par. [0060], par. [0079] lines 13-16, Fig. 3 element (314d)), and to record an identification of a last access point [playing position] (CURRENT\_POSITION (308d)) (Fig. 3) of the content material communicated to the first terminal (par. [0061]),

wherein, upon an interruption of the communication with the first terminal (par. [0090]), the server is configured to enable the resumption of transmission from a last random access point in the stream when the stream was interrupted through a connection to a second terminal associated with the user [another media receiver associated with the customer's account] (par. [0090]), wherein a position within said determined content associated with said connection to said second terminal is determined based on said last random access point [last played position is correlated with the current playing position at which to resume the streaming; connection is, in turn associated with a selected one of said media receivers] (par. [0090], Fig. 7) and said

connection to said second terminal is determined based on an available bandwidth of the network (par. [0052], [0078]).

Hamilton does not teach wherein which of said encoding rate formatted content is determined by an encoding rate offered by said one of said connections.

Sitaraman teaches a method and apparatus for measuring stream availability, quality and performance (abstract). In particular, Sitaraman teaches that a server has access to several encoded versions of said content [multiple interleaved encodings of multi-bitrate media] each version having a specific encoding rate [each version having different bitrate] (par. [0058]). It is inherent that said encoding rates are associated with a corresponding connection, wherein said random access points are common in each of said formatted encoding rate versions of said content because otherwise the server would not know at which point of network degradation to step down to a lower bitrate encoding and from which point to continue transmission of the content.

It would have been obvious to one of ordinary skill in the art at the time of the invention modify the server of Hamilton by having several encoded versions of said content, each version having a specific encoding rate and grading said server access to said several encoded versions of said content in order to allow the server to step down from a higher-bitrate encoding to a lower-bitrate encoding, effectively thinning the media when the network degrades while continuing streaming of media without interruption (par. [0058] in Sitaraman).

As to claim 13, Hamilton shows that the media server (46) is including the content of streaming content material (par. [0035], Fig. 2).

As to claim 14, Hamilton shows that the database includes an initial set of one or more communication parameters associated with each terminal [an indication of the channel's bit rate] (par. [0079]), and the server is configured to resume transmission based on the initial set of parameters associated with the second terminal (par. [0082]).

As to claim 15, Hamilton shows that the initial set of parameters includes an identification of an appropriate version associated with each terminal [the channel's bit rate for the connection established is matched with the bit rate of the selected content] (par. [0079]).

Hamilton does not show that the source of streaming content material includes a plurality of versions of the streaming content material.

Sitaraman shows that a server has access to several encoded versions of said content [multiple interleaved encodings of multi-bitrate media] each version having a specific encoding rate [each version having different bitrate] (par. [0058]).

It would have been obvious to one of ordinary skill in the art at the time of the invention modify the server of Hamilton by having the source of streaming content material include a plurality of versions of the streaming content material in order to allow the server to step down from a higher-bitrate encoding to a lower-bitrate encoding, effectively thinning the media when the network degrades (par. [0058] in Sitaraman).

As to claim 16, Hamilton shows that the initial set of parameters includes an identification of an appropriate communication speed [bit rate] associated with each terminal [each connection of each terminal] (par. [0052], [0078]-[0079]).

### ***Conclusion***

9. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **OLEG SURVILLO** whose telephone number is (571)272-9691. The examiner can normally be reached on M-Th 8:30am - 6:00pm; F 8:30am - 5:00pm EST.



If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on 571-272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Examiner: Oleg Survillo

Phone: 571-272-9691

**/Asad M Nawaz/  
Primary Examiner, Art Unit 2455**